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ABSTRACT

A study of Arizona vocational education follow-up systems was designed to survey problems in and promising practices for developing information systems to provide useful data for decision making. Interviews with state, county, college, and school district personnel revealed that the major problem faced by those conducting follow-up studies at both secondary and postsecondary levels was to get sufficient returns (60-80 percent). Solutions to this problem include keeping addresses of students current, motivating students and schools to participate, and using questionnaires that elicit the requested information. Other problems that the study found were clarification of definitions for "program," "completer," and "leaver," and the distribution of reports to decision makers and target audiences. Because the study found that the current vocational education student follow-up system is centralized and has a response rate of 16-19 percent, recommendations for improving the system include the following: (1) the system should be decentralized to involve local school districts, with questionnaires mailed from and returned to the school the student attended; (2) a student orientation to the follow-up process should be conducted prior to the student's leaving school; (3) the state should continue to design the questionnaire, compile the data, and report the results; and (4) the decentralized system should be pilot tested before statewide implementation and after definitions have been clarified. (Thirty-four references are listed.) (KC)

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A STUDY OF VOCATIONAL EDUCATION FOLLOW-UP PROCEDURES

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A STUDY OF VOCATIONAL EDUCATION

FOLLOW-UP PROCEDURES

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FOREWORD

Project 1995

Project 1995 was funded in March, 1983, to provide direction for Vocational Education in Arizona through the year 1995. The study had seven objectives which resulted in the following seven monographs:

- A Study of Arizona Labor Market Demand Data for Vocational Education Planning
- A Study of Vocational Education Follow-Up Procedures
- Analysis of Data on the Nature and Scope of Vocational Education Programs in Arizona
- Articulation of Vocational Education Programs in Arizona
- Analysis of State Funding Alternatives for Vocational Education
- A Model for Determining Vocational Education Funding Priorities
- A Plan to Improve Arizona Vocational Education Data Systems

Although each monograph covers a specific area of study, there are relationships among them and all provide recommendations for improvements in Arizona's vocational education data systems.

A number of recommendations for short-term and long-range modifications in the data system have been made. As these changes are implemented, more valid and reliable data will be available to plan vocational education in the future.

Acknowledgments

We thank Task Force 1995 for their support and guidance throughout the duration of this project. We acknowledge the efforts of the Technical Review Committee members for their time in providing direction and in reviewing the monograph. The memberships of the Project 1995 Task Force and the Technical Review Committee are presented in Appendix A.

Special acknowledgement is given to members of the Vocational Education staff, Arizona Department of Education and of the Labor Market Information staff, Arizona Department of Economic Security for their time and contribution to the project. The project staff is indebted to those who gave of their time and expertise through the interviews. A list of the persons interviewed is in Appendix C.

We wish to acknowledge especially Shirley Mannion and Joe Baird of the vocational technical education staff of the Arizona Department of Education. They have shared their time, expertise, and knowledge about the VED's system and the Arizona Follow-Up System. Thank you.

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EXECUTIVE SUMMARY

This study of vocational education follow-up systems was designed to survey problems in and promising practices for developing follow-up information systems. The purpose of these systems is to provide useful information for decision making. The major problem faced by those conducting follow-up studies at both secondary and post-secondary levels was to get sufficient returns (60 to 80 percent). Solutions to this problem include: (1) keeping addresses of students current, (2) motivating students and schools to participate enthusiastically in the study, and (3) using questionnaires which elicit the requested information.

Another problem is clarification of definitions for program, completer, and leaver. Identifying purposes, in addition to compliance, needs to be done prior to the study design. The development and distribution of informative reports to decision-makers and targeted audiences was considered to be vital.

The current Arizona vocational education student follow-up system is centralized. Names and addresses of program completers and leavers are submitted by local districts to the Arizona Department of Education. The questionnaires are mailed from and returned to the state level. The response rate for the 1981-82 program completers was 16 percent at the secondary level and 19 percent at the post-secondary level.

The recommendations for improving the Arizona follow-up system are:

1. The system should be decentralized to involve local districts. Follow-up questionnaires should be mailed from and returned to the school which the student attended.

2. A student orientation to the follow-up process should be conducted by the local school prior to the student leaving.

3. The State should continue to design the questionnaire, compile the data, and report the results.

4. The decentralized system should be pilot-tested before statewide implementation. The system should be pilot-tested at the secondary level for the 1983-84 program completers and leavers. The system should be pilot-tested for the 1984-85 post-secondary completers and leavers after definition of program, completers, and leavers have been refined.

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Chapter 1

INTRODUCTION

The Educational Amendments of 1976 provided that vocational follow-up data and information be collected and disseminated for use in making decisions concerning the development and improvement of vocational education programs (Franchak and Spirer, 1978). Arizona Revised Statutes (ARS 15-203) require the State Board for Vocational Education, in conjunction with the State Board of Directors for Community Colleges, to conduct a yearly follow-up of vocational education programs and provide a copy of the results to all school districts and community college districts.

There have been problems, however, in getting reliable information. Among the problems are getting adequate response rates to follow-up studies and putting the collected information into forms that are usable by decision makers at various levels within each state. Also the methods to be used when collecting data and conclusions to be drawn from data may differ from one program to the next as stated in the following quote from Phi Delta Kappan.

> Diversity within vocational education makes homogeneous outcomes impossible. Job placement and employer satisfaction are important measures of effectiveness of occupationally specific programs. However, they are inappropriate measures for evaluating the effectiveness of other kinds of programs. Moreover, evaluations of effectiveness must focus separately on secondary programs and on post-secondary programs, because their goals and clienteles differ markedly (Bottoms and Copa, 1983).

Manuals have been written giving instructions on how to comply with the requirements of VEDS and many follow-up studies have been conducted by vocational education institutions. This report has compiled the current state-of-the-art regarding follow-up evaluations for the use of educators, government personnel, and members of the communities of Arizona.

Chapter 2

REVIEW OF LITERATURE

Accountability in vocational education was stressed throughout the review of literature. Emphasis on cost effectiveness and cost benefit required that decision making and planning be more objective and systematic (Ponce, 1981). Follow-up systems have been developed with a goal to provide quality information for decision making. Interest in follow-up of vocational students has been increasing; a review of follow-up studies since 1970 found 171 citations in Educational Research Information Center (ERIC) directly related to vocational and technical education (Asche and O'Reilly, 1979).

Often, however, the information gathered by follow-up studies was used only for reporting at state and federal levels and not used for management and decision making. The National Center for Research in Vocational Education at Ohio State University observed: "Too often...these results (of follow-up studies) are not used, partially because the manager is unaware of the potential benefits of this procedure and partially because evaluation findings are not packaged in the most usable form." (Stevenson, 1979).

This review of literature addresses the purposes and criteria for student follow-up studies. Included are:

1. Types of data,
2. Sources of information,
3. Methods to increase response rates,
4. Methods to check for non-response bias,
5. Dissemination of results,
6. Student satisfaction,
7. Employer follow-up and satisfaction,
8. Placement,
9. Follow-up management systems.

Student Follow-Up

Purposes and Users

Researchers agreed that the purpose of follow-up in vocational education was to provide needed information to decision makers in order to help them make better decisions. Asche and O'Reilly (1979) reported that in the studies they reviewed the information gathered was utilized for:

1. Compliance and reporting,
2. Evaluation/program improvement,
3. Planning,
4. Research,
5. Evaluation/improvement of follow-up process.

Other uses of follow-up data reported by Hall and Reed (date not given) included:

1. Helping students make career choices,
2. Student recruitment,
3. Institutional management,
4. Trend identification,
5. Accountability and budgeting,
6. Policy decision making,
7. Consumer information,
8. Assessing community impact,
9. Public relations.

Decision makers who needed follow-up information about vocational education were found in such units as the United States Department of Education, state departments of education, state advisory committees, higher education institutions, school district governing boards, local education agencies, local advisory committees, accreditation and approval agencies, and other public groups (Franchak and Spirer, 1978; Hall and Reed, date unknown). Within these units administrators, planning personnel, guidance personnel, teacher educators, teacher/faculty, students, and research and development personnel were identified as those who could use the follow-up data to make decisions based on factual information rather than subjective feelings (Franchak and Spirer, 1978; Gray, 1979).

The first steps in designing a follow-up system are to define the purposes, identify the users, and identify the uses of follow-up information. Consider the purpose, users, and uses to the classroom teacher. Although researchers agreed that the primary purpose of a follow-up system was to provide needed information to decision makers, they found that the most pressing need was to meet the reporting requirements of (VEDS).

Three general types of information required by VEDS in the 1976 amendments to the Vocational Education Act are: (1) program enrollment and termination data, (2) completer/leaver follow-up data, and (3) employer follow-up (Asche and O'Reilly, 1979).

Arizona Revised Statutes (ARS 15-203) mandated a statewide yearly follow-up by instructional program in cooperation with the school districts and community college districts. The follow-up report must record the number of completers and leavers in each program area. Also required 15 to be the number of students employed within a six-month time period for at least the equivalent of two months' full-time employment within the program area in which the student received

training. Appendix B lists and compares the requirements of VEDS and Arizona for follow-up of vocational education students.

Follow-Up Study Criteria

Once the purpose of a follow-up study had been defined and potential users identified, the design of the study was considered to be the next step. The validity of the data collected was a basic consideration in planning. The literature review indicated various practices which contributed to the quality of data collected (Wentling, 1980; Franchak and Spirer, 1978; Asche and O'Reilly, 1979).

1. Surveying the entire school population of vocational and nonvocational students was recommended. If surveying the total population was impossible, sampling was done by selecting representative schools and surveying the entire graduating class in each school or by selecting a statistically representative sample from among the graduates of all schools in the State.

2. It was recommended that leavers, as well as completers, of vocational educational programs be surveyed.

3. Although a response rate of 60 percent was considered good, a response rate of 80 percent or better was considered necessary to minimize the possibility of bias in the results of the follow-up.

4. Some researchers recommended that a nonrespondent survey be conducted if the response rate was less than 80 percent. Other researchers recommended a spot check be done for bias if the response was less than 100 percent.

Assuring that the data collected provided information to the users was the next consideration after validity was assured. It was agreed that results of follow-up studies should be printed in a form that would meet the needs of the users and should be printed and distributed as soon as possible so the information was still current and useful.

It was recommended that data be collected on an individual student basis over two or more years. This would provide opportunities to recognize developing trends.

The cost was also a consideration in planning follow-up surveys. The TexSIS system reported a cost of $1.25 per questionnaire for their First-Year Graduate follow-up survey. Minnesota allotted a budget of $70,000 to survey 60,000 secondary students; however, that did not include the money spent by local school districts. A study in California used structured telephone interviews and felt that was cost effective in terms of the resulting sample validity (Sheldon, 1981).

Data Elements

The data elements most often used in follow-up studies Asche and O'Reilly (1979) reviewed were:

1. Present employment,
2. Present educational status,
3. Employment history,
4. Employment satisfaction,
5. Earnings,
6. Evaluation of training,
7. Evaluation of school services,
8. Recommendations to school.

Mertens (1980) reported data collected from 232 studies. She divided the data elements into three broad classes:

1. Employment
   a. Present Employment
   b. Employment History
   c. Employment Satisfaction
   d. Earnings

2. Education/Training
   a. Basic Skill Attainment
   b. Academic Abilities
   c. Attendance and Dropout
   d. Occupation Skill Attainment
   e. Continuing Education

3. Ancillary Effects
   a. Aspirations
   b. Attitudes and Values
   c. Feelings of Success
   d. Citizenship

Ponce (1981) recommended using at least three questions on each data element in order to check the validity of the responses. However, he warned that if more than five questions were used, there was a danger of invalidating items near the end of the questionnaire because of fatigue on the part of the respondent. He also recommended the construction of dummy tables to check the questions to assure that correct information would result from the questions being asked. As he pointed out, data is not information but information does come from data.

Sources

Former students, both completers and leavers, were considered to be legitimate sources of information with different perspectives and different contributions to make to the data being collected. Students

who had completed a vocational program supplied data about working environments and job opportunities in their field, salaries, value and quality of the training they received, and their satisfaction with their jobs. Students who had left a vocational program supplied data about personal goals and problems which influenced their decision to leave the program. This data could be used by schools in program planning.

When former students could not be reached, Minnesota accepted data supplied by people who knew the students. When students had not responded after two mailings, attempts were made to locate students by telephone. At the time of the telephone call, data was accepted from people who knew the student (i.e. parents, spouse, or other relative). The questionnaires asked only about present educational and employment status (Welo, 1982).

Another source from which to obtain follow-up data is the existing records in other areas of government besides the schools. Oklahoma conducted a feasibility study of collecting follow-up data from existing records (Morton, 1981).

> The Oklahoma State Occupational Information Coordinating Committee determined the feasibility of collecting follow-up data on completers (labor market supply) from existing records. Sources of such information were identified as the Oklahoma Employment Security Commission, the State Board of Higher Regents, the State Board of Private Schools, CETA Prime Sponsors, the State Department of Vocational and Technical Education, and the U.S. Department of Defense. Information sought included employment status (employed/unemployed, related/unrelated), county or area of employment, salary, educational status (continuing education/not continuing education), and if the program completers had enlisted in the military.

Existing records provide accurate information on completers with a 92 percent accuracy level in designating where the completer is working in the substate areas in Oklahoma. The computerized existing records can obtain accurate data on most of the completers.

> When the sample of 890 program completers' social security numbers were run through the various data sources, a residual of 191 of the total number remained which were not located. This residual includes those who are self-employed, unemployed, not seeking employment, but seeking employment other than through the Employment Security Commission process, out of state, deceased or unknown, and those for whom incorrect social security numbers have been recorded. It will be necessary at this point to survey a sample of residual or to follow up the entire residual group through the traditional follow-up technique.

Response

The major concern about follow-up studies was the low response rates. When response rates were low, the data could not be used with confidence by decision makers at either state or local levels.

Methods to Improve Response Rates. Procedures have been documented which produced response rates of over 60 percent, considered very good. These methods included the coordination of effort between State and local districts, preparation of students before graduation, involvement of key people, several mailings, and the use of incentives.

1. The highest response rates were obtained in systems which used centralized research and development, production of forms, data analysis, and reporting, with local agencies making the actual student and employer contact (Asche and O'Reilly, 1979). This approach was used by the Minnesota Secondary School Follow-Up System and the response rate averaged 80 percent with some small schools getting 100 percent. The TexSIS follow-up system also used this approach and averaged a response rate of 55 to 65 percent with some schools reaching 80 percent.

2. Orientation of students prior to graduation to prepare them for the follow-up resulted in better response rates and more complete and accurate responses (Gold and Morris, 1978). The importance of the information to be obtained was explained to the students; they were shown a copy of the instrument and given an explanation of how to complete it. They were also told the approximate date they could expect to receive the instrument. Change of address postcards were distributed to the students with the request that they return the card to the school if they moved before receiving the questionnaire (Wentling, 1980).

3. It was essential to involve key people early in the planning of follow-up surveys. Wentling (1980) said people who identified with a task were more likely to carry it through. Asche and O'Reilly (1979) cited the success of Minnesota with their surveys which had space on the instruments for the teachers to add questions of interest. Franchak and Spirer (1978) cautioned people directing follow-up studies to get the results to the participating local districts as soon as possible. Wentling (1980) stressed that a follow-up study should be presented to administrators, teachers, and students in a positive light and as a vehicle for improvement.

4. Two mailings, perhaps three, approximately two weeks apart, followed by a telephone call to those still not responding resulted in acceptable response rates for several follow-up systems in use (Gold and Morris, 1977; Gary, 1979). The initial mailing included a cover letter signed by someone known to the students, a questionnaire, and a stamped and return addressed envelope. A postcard reminder was sent ten days later to those not responding. Some researchers felt another letter, questionnaire and stamped, addressed envelope would get better results than a postcard. A third mailing or more was sometimes sent. Wentling (1980) said the more mailings, the better the response rates. A

personal interview or telephone call to those still not responding was recommended as a last resort. Wentling (1980) recommended sending the questionnaires early in the school year and early in the week. He also recommended printing "Please Forward" on the outside of the envelope. Although the post office will forward first class mail without the printed request, the request would alert parents to send the questionnaire to the student rather than waiting for the student to return home. School districts could keep their files up to date, by requesting the post office to notify them of forwarding addresses.

5. Lack of comprehension, knowledge, or motivation were found as reasons that people did not respond to written questionnaires in a study done by Norman in 1948 and cited by Wentling (1980). The following methods were suggested to increase the probability that a student would complete the questionnaire and return it once it had been received (Wentling, 1980; Franchak and Spirer, 1979).

a. Keep the questionnaire short.
b. Put the easiest questions first.
c. Arrange the questions in a logical sequence.
d. Allow adequate space for writing in answers.
e. Arrange pages to look neat and attractive.
f. Use good quality paper.
g. Print, do not mimeograph, questions.
h. Use colored paper rather than white (green tested well).

6. Incentives were used to attract attention and encourage the students to complete the questionnaires. Franchak and Spirer (1978) reported some incentives that have been used in follow-up studies:

a. Including a packet of instant coffee and suggesting the respondent have a cup of coffee while answering the questions.

b. Including a pencil with the school name on it and suggesting the student use the pencil to fill out the questionnaire.

c. Offering to send information about classmates (addresses, news about what they are doing) to everyone who returned a completed questionnaire.

7. The local news media have been asked for public service announcements about follow-up surveys, and media events have been used as ways to publicize the follow-up survey and encourage responses. New York City obtained a 51 percent response rate and focused public attention on the advent of yearly follow-up surveys of their vocational programs by holding a public drawing and awards ceremony. Each respondent's name was entered in a sweepstake, the media was invited to witness the drawing, and a press release was prepared which presented the results of the follow-up survey (Collecting and Reporting Occupation Education Information, 1981).

When the above procedures were incorporated into the planning and implementing of follow-up surveys, acceptable response rates were achieved. The data gathered was reported to have been helpful to administrators and teachers as they made decisions concerning program planning.

Nonresponse Bias. The people who did not respond to follow-up surveys have been found to be different from those who did, according to Wentling (1980). Nonrespondents were those from whom no information was received during the normal planned data collection sequence (Asche and O'Reilly, 1979).

When nonrespondent surveys were done, which was not often according to Asche and O'Reilly's (1979) review of follow-up studies, important differences were found between the characteristics of respondents and nonrespondents. They recommended, therefore, that when the response rate was less than 80 percent, a survey of nonrespondents be conducted to assess whether bias might be occurring. If the survey indicated significant differences between respondents and nonrespondents, then decisions had to be made about which method to use for additional follow-up: mail survey, telephone or personal interview. Decisions would also need to be made about whether to use the original questionnaire or a shortened version.

Even if the response rate were over 80 percent, Asche and O'Reilly (1979) recommended a spot check for bias. Three suggested choices to accomplish this were:

1. Take several important questions from the original questionnaire and conduct a telephone interview with a number of non-respondents and compare their answers with the answers of the respondent group (Gold and Morris, 1977).

2. Compare characteristics which might reasonably result in bias of respondents with those of nonrespondents.

3. Compare responses of early respondents with responses of later respondents. The assumption was that nonrespondents' answers would more closely resemble later respondents' answers. Asche and O'Reilly (1979) believed that was a questionable assumption.

Asche and O'Reilly (1979) said that if differences were found using any of the methods, data could not be assumed to represent the population accurately. If the data were used, the fact that it may not be representative should be clearly stated.

Dissemination of Results of Follow-Up Studies

Data were not useful to decision makers if the data were not presented in an appropriate form. Franchak and Spirer (1978) suggested

different reports for different audiences. A one to three page report for the public/community, a one-page executive summary for educational administrators and selected audiences, and detailed reports for educational planners were suggested. Other methods were as follows:

1. Highlights Report or Executive Summary - (a two- to three-page summary for community or general public)

    a. Number of vocational/occupational graduates as a percentage of all graduates.

    b. Number of graduates by seven general program areas.

    c. Proportion of graduates who responded to the survey.

    d. Number of graduates by program who continued their education or found jobs related to their training.

    e. Demographic information on the graduates.

2. Mini Report - (for state level)

    a. Same as the five items in the Highlights Report.

    b. Map illustrating the distribution of the graduates.

    c. The State goals/priorities of vocational education.

    d. Major accomplishments to date to meet the goals/ priorities.

    e. List of major conclusions and recommendations.

3. Detailed Report

    a. Summary - purpose, procedure, results, conclusion, recommendations

    b. Economic environment and labor force results

    c. Results

    d. Conclusions

    e. Implications for policy making and for decision making for program improvement and development

    f. Appendices:

        (1) Procedures - data collection and analysis;

(2) Returns - rates by program, type of school, geographic location;

(3) Limitations;

(4) Data tables;

(5) Copies of survey instruments.

Various audiences to whom reports might be distributed were: general public/community, educational planners at local and state levels, selected audiences as state and local education boards and craft advisory committees.

Franchak and Spirer (1978) suggested that dissemination of results should be considered from the beginning of the planning of follow-up studies. They also recommended the confidentiality of the data be safeguarded.

Student Satisfaction

Student satisfaction with preparation for employment was one of the elements of follow-up, mandated by both federal and Arizona legislation. Although student satisfaction was sometimes measured in terms of job placement success or earnings, satisfaction was actually considered to be a subjective feeling on the part of the student (Ponce, 1981).

Some of the problems with using former students' judgments and opinions were listed:

1. The response/nonresponse bias might be significant.
2. Judgments are affected by the individual's values, needs, expectations, and goals.
3. Data may not be used correctly (it does not provide final answers or show cause and effect relationships).
4. A high-level of satisfaction does not necessarily indicate program effectiveness or quality.

Some guidelines that were considered for conducting satisfaction studies were:

1. Consider the data as judgments and opinions, not facts.
2. Specify criteria to be used in reaching judgments.
3. Collect specific rather than general information.

4. Collect only data directly related to stated objectives.

5. Base the time frame for collecting data on program goals and objectives and common sense.

Ponce (1981) stressed that care should be exercised to assure that student satisfaction is viewed as exactly that and not as facts about the program. He also said that satisfaction will be dependent upon the aspirations of the student which were determined by asking what the student expected and then if the student reached the expectations.

A review of 232 studies from 1968 to 1979 on the effects of participating in vocational education found that the majority of vocational students were satisfied with their education. However, caution was advised in interpreting the results. As an example, a study was cited in which 100 percent of the respondents reported that their training had provided personal and vocational improvement but, when asked to make suggestions for program improvements, 49 percent recommended needed improvements (Mertens, McElwain, Garcia, Whitemore, 1980).

Employer Follow-Up

Employer follow-up could be a part of comprehensive follow-up systems or be conducted as independent studies. When done as part of a system the usual purposes were:

1. To evaluate program effectiveness,

2. To compare the satisfaction of the employer with the vocational training former students received,

3. To assess the entry level skills employers expected from their employees.

If conducted as independent studies the purposes were:

1. To improve the relations between education and industry,

2. To assess the types of jobs available in the community,

3. To get information that could be used to keep programs technically up-to-date (Asche and Vosler, 1980).

Purposes and Users

Employer follow-up was mandated by federal and state law; therefore, compliance and reporting was one purpose of follow-up surveys of employers. The federal VEDS report was to be submitted 18 months

after students' graduation including information concerning the employer's satisfaction with the quality of training the former student employee received. Arizona requires that yearly statewide surveys be conducted regarding all vocational and technical programs which school districts or community colleges offer.

Criteria

Criteria suggested for an employer follow-up were similar to student follow-up. Careful construction of questions assured getting factual information and not the employer's generalized feelings about vocational education (unless that was what was desired). If factual data about the vocational preparation of former students was desired, it was necessary for an immediate supervisor to complete the questionnaire (Franchak and Spirer, 1978).

Data Elements

Data elements most often found on employer follow-up instruments were: (1) job knowledge, (2) job skills, (3) work attitudes and characteristics, (4) evaluation of employees training/preparation, and (5) recommendations to school/program (Asche and O'Reilly, 1979). Broken down into more detail, data elements on employer follow-up studies included: (1) quality of work, (2) quantity of work, (3) job skills, (4) operation of tools and equipment, (5) basic academic skills, (6) work habits/attitudes, (7) acceptance of responsibility, (8) punctuality, (9) supervision required, (10) cooperation with co-workers, (11) willingness to learn and improve, (12) cooperation with management, (13) compliance with rules/policies, (14) attendance, (15) overall satisfactoriness, and (16) promotability (Asche and Voster, 1980).

Sources

Employers of former students were the legitimate source for obtaining information about how adequately prepared for work the vocationally trained students were. All employers in the community were sources of information about descriptions of jobs and markets for future program completers. Two difficulties encountered with collecting data from employers were infringement upon their time and concern for confidentiality of this information (Stevenson, 1979).

Response

It was important to achieve a response rate that would minimize bias in the study. Wentling (1980) said 70 to 80 percent was adequately representative for employer surveys. Research showed that survey instruments that were vague did not generate as high a response rate as those with clear questions that could be quickly answered by the

employer. Researchers agreed that it was important to channel the questionnaire to the former student's immediate supervisor if the objective was to get a valid assessment of individual abilities of vocationally trained students.

Dissemination of Results

The results of the employer follow-up surveys were included with other reports if they were part of a comprehensive follow-up system. Also presented were specific reports which included only the results of the employer follow-up. These were distributed in the community to interested groups for information and for public relations. Franchak and Smiley (1981) suggested including a tear-out evaluation card in the evaluation report for making suggestions to improve the presentation of the information.

Employer Satisfaction

Satisfaction was defined as a subjective feeling dependent upon values and expectations of the employer as well as performance of the former student. Franchak and Smiley (1981) stressed that education evaluators needed to understand the distinction between employer satisfaction with training and employer satisfaction with job performance. The education evaluators should decide which was needed and ask the correct questions in order to get valid information from follow-up surveys. Construction of questions was very important to assure obtaining the type of information desired.

Placement

Placement was defined in the Kentucky handbook as:

> A service which assists vocational education students and former students in relating their personal qualities, education and experience to career requirements, assisting them in their search for employment and/or continuing education, and cooperates with employers and educators in the successful induction of the individual into his next career position (Willett and Sierp, 1982).

Kentucky had developed a placement component as part of its follow-up program. The placement component in Kentucky involved the students, their teachers, and interviewers from the state employment office. Placement Cards were initiated for each student when the student was available for employment and were updated each semester. Interviewers from the state employment office went to the schools, reviewed the Placement Cards, conferred with teachers and arranged for student

interviews. The Placement Cards were also used for information for the various follow-up studies that were part of the complete Follow-Up and Placement Program in Kentucky. The career placement system also provided teachers and counselors to advise students on pursuing a higher level of education (Gary, 1979).

Phoenix Union School District had a placement service for its secondary students for approximately ten years from 1972 until 1981. It was directed by Mr. Charlie Munn who had retired at the time he was interviewed and was serving on the State Vocational Advisory Board. During the life of the service, job bank tapes were obtained from the Department of Economic Security by the school district. Students were referred to appropriate jobs that were listed on the tapes. It was agreed that the school district would not send unqualified applicants to interview for job openings. An intern program for seniors in their second year of vocational training, in which they worked one-half day and attended school for half a day, was in effect for five years.

Jobs for Arizona Graduates (JAG) was working with approximately 1,500 Arizona High School seniors in 1983. The goal was to help students find full-time employment after graduation. The program was funded by the Department of Labor with a staff of 40 to 45 people. One person was assigned full time to each participating high school. That person would work with 30 to 50 students teaching preemployment skills and assisting them in job placement. The same person would also canvass the area for job openings for the students. The cost, which was determined by dividing the total budget by the number of students placed, was about $1500 per student for the school year 1982-83 and the placement rate, which was defined as positive outcome which included post-secondary training and the military as well as employment, was 85 percent.

During the interviews it was suggested that Phoenix and Scottsdale school districts had placement services for their students. However, upon investigation it was learned that the programs were actually for students' training during school and not for placement of students who were about to graduate.

A three-year longitudinal study of community colleges in Illinois beginning in the fall of 1974 found that 84 percent of their graduates were employed, either full- or part-time, and 16 percent were continuing their education. Of those employed, 55 percent reported finding their jobs on their own, 19 percent continued in a former job, 11 percent were assisted by college personnel, and only 1.9 percent found their jobs through the college placement office (Illinois, 1979).

Pima Community College in Tucson placed 1,700 students during 1983. Since most of their students were paying their own college expenses, the college estimates that approximately 85 percent of the students were already employed, either full time or part time, when they enrolled in classes. Students who have already graduated or who are still attending school were eligible to use the Placement Office to locate jobs. They

first completed an application and preemployment interview at the college office. As the office was notified of available jobs by employers in the community, qualified students were referred. The placement rate was one out of four referrals. Although a job bank was maintained, because of limited resources, job development was minimal and records were not kept of how many students found their own jobs.

Factors affecting job placement could be limitless. According to one person interviewed, many teachers do not believe in job placement because they feel they will be evaluated on placement rates rather than on teaching skills. Some specific factors McKinney and Halasz-Salster listed in papers presented in 1981 were as follows:

1. At the secondary level

    a. The size of the community seemed to correlate with the job placement rate,

    b. A negative relationship existed between higher educational rates in the community and placement rates,

    c. A labor market with extremely high or low unemployment negatively affected placement rates,

    d. Community economic and social stability correlated positively with higher placement rates,

    e. Job placement was an interaction among community, labor market, and education areas.

2. At the post-secondary level

    a. There were higher job placement rates in medium-sized communities,

    b. The community attitude toward the purpose of post-secondary education affected the placement rates (the higher the regard for vocational education, the better the placement rate).

Their conclusions were that educators and decision makers could improve the placement rates by:

1. A commitment to job placement as the major goal of vocational and technical education, and

2. A responsiveness to meet present and future local employment needs.

They stressed that collaboration and coordination with appropriate organizations in the community were essential for high placement rates.

Persons responsible for placement in vocational education programs have expressed concern related to reporting placements. The question was raised about what is an acceptable placement. When a student continues in education, or goes into military service, how does that reflect on the placement rate? When a student decides, as a result of the vocational education experience, not to go into a particular occupation, how is the value of that reflected in the placement? Can the definition of successful placement be broadened to include values other than employment?

Follow-Up Management Systems

Several follow-up management systems judged to be successful had been developed and were in use at the time of the study. Although compliance was considered in the systems, programs that would result in management and decision-making information were also incorporated. Several statewide systems were investigated for this study as well as selected secondary and post-secondary systems.

Secondary

Each year Minnesota conducts a follow-up study of all of the students graduating from approximately 100 secondary schools within the state. The Minnesota follow-up data collection system resulted in an 80 percent response rate with some smaller schools getting 100 percent. The system was decentralized with voluntary participation by approximately one quarter of the local school districts each year. Questionnaires were printed by the state and distributed to the participating districts. Each district provided: (1) the time to enter the data from the permanent records, (2) conducted a career planning survey during school hours one month before the senior class graduated, and (3) sent the questionnaires to the students for the follow-up survey. The students returned the questionnaires to the local school which coded them and sent them to the state where they were keypunched and checked for errors. Custom generated reports were distributed to each participating school and special reports were completed for schools when requested. Although the reports were computer printouts, they were presented in an attractive, readable form as if individually typed. A complete report was submitted to the state education department and the VEDS forms were completed with information extrapolated from the available data. A computer software program was being written which would allow microcomputers to be used in each local district to process the returned questionnaires (Welo, 1983).

Kentucky developed a comprehensive follow-up and placement program. It included: (1) an initial student follow-up in the January following graduation from secondary school, (2) an employer follow-up, (3) a two-year follow-up of students graduating from area vocational education

centers and state vocational technical schools, and (4) a three-year program improvement follow-up.

Kentucky had 14 regional districts where the follow-up studies were coordinated. Students self addressed a questionnaire before graduation which was filed at the local school. Teachers then sent the questionnaire with a cover letter to each student in the January following graduation. When the questionnaires were returned, reports were compiled by the teachers and submitted to the regional offices. The regional offices prepared summaries and submitted them to the state office which prepared a state summary and reports for federal agencies.

Scottsdale School District in Arizona was able to contact 46 percent of their vocational graduates for their 1982 follow-up study of 1979, 1980, and 1981 graduates. They used a telephone survey and attempted to contact every one of the 1,994 former students. Nine hundred and twenty were contacted and the rest could not be reached due to wrong telephone numbers, no answer to telephone calls, and/or disconnected telephones (Scottsdale School District, 1982). The objectives of the study were to determine: (1) the adequacy of the training provided to vocational students, (2) the placement success of the students, (3) the further education of the students, and (4) the other benefits of vocational education such as a better feeling about self (Erickson). An employer survey was also conducted in 1982 which was mailed to 814 members of the Scottsdale Chamber of Commerce. A 27 percent response rate was achieved. The objectives of this survey were to determine: (1) type and quantity of entry level positions available, (2) types of skills business and industry felt were needed, (3) local business and industry knowledge of vocational programs, and (4) type of programs local business and industry would like offered in vocational schools (Scottsdale School District, 1982).

Post-Secondary

Texas, California, and Illinois developed comprehensive plans for follow-up studies throughout their post-secondary systems. All of the plans involved each post-secondary institution in the statewide planning process. Each institution carried out its own study and reported the results for statewide compilation.

In Arizona, Pima College, Tucson surveyed each graduating class until 1982 using its own system and instruments. Yavapai Community College, Prescott, used the TexSIS system to do a series of follow-up studies in 1981 and 1982.

The Texas Student Information System (TexSIS) was developed for Texas and later marketed to Mississippi (MisSISsippi) and Michigan (MiSIS). The follow-up system had 14 instruments available for students and employers. Schools could buy the instruments and computer software to do the surveys and tabulations themselves or they could purchase the complete service. The cost would vary according to which surveys were

used and how much work was done locally. An individual school or school system could do just one or many different surveys with the TexSIS system.

Yavapai Community College conducted a First-Year Graduate Follow-Up, a College Withdrawal Follow-Up, a Course Withdrawal Follow-Up, and a Non-Returning Student Follow-Up in 1981 and 1982. The response rate with the First-Year Graduate Follow-Up was 51 percent. The system was compatible with VEDS reporting. Instruments were short and easy to complete, and survey reports were printed in a form that matched the instrument. Eighty percent response rates were reported as common with the TexSIS system.

California developed a Student Accountability Model (SAM) as a complete system of accountability in vocational education at the community college level (Gold and Morris, 1981). It included a method of classifying students in a program (often a problem when students themselves did not know what program they were in) and conducting student and employer follow-up. This system stressed the importance of orienting students to the survey before graduation. Sheldon used the SAM system and developed classifications for students according to their purpose for enrolling in the college (Sheldon, 1981a):

a. Finish a degree or certificate,
b. Improve skills for present job,
c. Try a new career,
d. Transfer to a four-year college,
e. Gain new hobbies or skills (self-interest).

In another study Sheldon (1981b) divided students into groups according to their reason for attending a vocational post-secondary institution. The groups and definitions are as follows:

1. Program Completer - a student enrolled and expecting to complete a two-year Associate Degree or a one-year certificate (this defines program completer differently than VEDS which defines program completer as a student who has already finished the program).

2. Job Seeker - a student whose primary motive was to learn vocational skills to get a job rather than to complete a program or to get a good grade.

3. Job Upgrader - a student who already was working in the field of the course when admitted, the goal was to improve skills, get raises, etc.

4. Career Changer - a student already employed but wishing to change careers or supplement income in outside work.

5. License Maintainer - a student who had to complete a number of hours of coursework in order to maintain a professional license.

Illinois conducted a statewide longitudinal follow-up study including the classes 1974 through 1977. It included all 38 community colleges in the state. The population included 100 percent of the students at colleges with less than 275 enrollment and a sample of one third of the students at larger colleges. Each college conducted individual surveys using instruments supplied by the state. Since each college did its own survey, the response rates were varied. A "leavers" survey was also conducted. A 35 percent response rate was obtained and showed that students leave college for a variety of reasons.

In 1978 a procedure was established for yearly statewide follow-up surveys. This included a uniform survey instrument to be used by all of the community colleges in Illinois. The instrument was to be sent by the individual community colleges to their students with a cover letter signed by the president of the college or the director, coordinator, or a faculty member in the student's program area. Each college had a coordinator and an assistant who supervised the survey. Since community college personnel change jobs, making both the coordinator and the assistant responsible for the survey increased the chances that continuity would be maintained.

Pima College discontinued its yearly follow-up surveys in 1982 because of lack of funding. The response rate was 40 percent. The college used its own instrument and reported data to the state for use in completing the VEDS reports. Student follow-up surveys were conducted each year and longitudinal studies and unique program follow-ups were conducted occasionally. One survey was with 272 Pima County employers of over 100 people. The purpose was to determine the needs of local employers.

Chapter 3

THE INTERVIEWS

Interviews were conducted with persons involved with vocational education in Arizona. An interview guide was developed using the criteria from the review of literature and the objectives of the project. Questions included:

1. What was being done about follow-up.
2. How effective was the effort.
3. Who was involved in collecting the data.
4. How much data was collected.
5. How was the information used.
6. How were former students and employers located.
7. How were former students classified.
8. What methods were used for gathering data.
9. How were populations defined and samples selected.
10. What was the response rate.
11. How was nonresponse bias considered.

Twenty telephone and personal interviews were conducted. They included individuals who represented:

1. Arizona Department of Education
2. County educational units
3. Community colleges
4. Secondary school districts
5. State Advisory Council on Vocational-Technical Education.

The persons interviewed are noted in Appendix C.

Opinions about the Value of Surveys

All individuals who were interviewed agreed that accountability and decision-making require accurate data. Follow-up surveys could supply the needed data. For example, from 1973 until 1977 the State Advisory Council on Vocational-Technical Education published a report based on information obtained in statewide follow-up studies. Since that time the data has not been made available for those reports because of the quality of the data.

Several school districts conduct their own follow-up surveys, both formally and informally. Other school districts do not conduct follow-up studies. Those interviewed, whether they conducted follow-up or not, felt that properly conducted follow-up studies could provide valuable

information for themselves and for others in vocational education. All agreed that former students were more likely to return a questionnaire to a former teacher than to a central agency with which they do not identify.

Arizona Department of Education Annual Follow-Up Survey

Each year the Arizona Department of Education (ADE) conducts a follow-up study of the entire population of identified vocational education program completers at the secondary and post-secondary levels. A sample of program leavers has also been surveyed.

The names and addresses of the former students are provided by the local school districts and community colleges. The questionnaires are sent from the state office to the students in November after their graduation. Responses are processed as soon as they are received. When a former student lists the name and address of an employer, that employer is sent a questionnaire concerning employer satisfaction with the student's job preparation. These are also processed as soon as the replies are received. A federal report is submitted by December 1 of each year (18 months after the student's graduation).

Strengths of the Present State System

The system has several strong points.

1. One hundred percent of the identified program completers are surveyed at the secondary level and a percentage at the post-secondary level. Also, a sample of program leavers at the post-secondary level are followed up.

2. The questions being asked would provide useful data for decision makers at state and local levels if the validity of the data could be improved.

3. A computer system is available to process the questionnaires as the responses are received.

4. The enrollment process supplies names and addresses for the follow-up survey.

Recommended Areas for Improvement

There were several problem areas.

1. The major problem is the low response rate which invalidates the data. Inaccurate addresses and low motivation of students to complete the questionnaires contributed to the problem. In 1982 the secondary response rate was 16 percent and the post-secondary response rate was 19 percent. A response rate of at least 60 and preferably 80 percent is needed to use the information with any degree of confidence.

2. At the secondary level it was found that students often did not identify with the vocational program that the school had recorded as the student's program. Assignment of program codes to students was difficult at the secondary level because many students are exploring options and have not yet chosen a vocation. But a vocational program classification is required for VEDS reporting and to determine if a student is employed in a job related to the training.

3. At the post-secondary level there was a problem in determining the reason students were enrolled in a class or program. Compliance requires that students completing programs be followed up. Many students at the post-secondary level never intend to complete a program; they may enroll for upgrading of job skills or for personal interest.

Chapter 4

SUMMARY OF ISSUES

There are several issues that must be resolved for a successful follow-up system. These issues include, among others, definition of terms, purposes, validity, and the actual collection of the information.

Validity of Studies

The major problem is obtaining enough returns of completed questionnaires so that the studies are valid. First, it was difficult to keep student addresses current. Second, the study needed to be well designed so students would be motivated to respond when they received the questionnaire. Third, items need to be stated so students respond accurately. It seems to be especially difficult to state items with respect to student satisfaction and employer satisfaction. Satisfaction is a subjective response and student expressions of satisfaction/dissatisfaction appear to change over time. Employers have difficulty separating student personality and other personal characteristics from education related variables.

Definition of Terms

Certain terms require specific definition. Vocational programs must be clearly defined. For example, is a program one course or a series of courses? A second issue is the assignment of students to a specific program. Many student programs include courses from several vocational areas. It then becomes difficult to code the student's program.

Definitions of "completers" and "leavers" are closely related to the definition of programs. This is especially true of the post-secondary level. In order to assign a student to a program, the researcher may need to look at student intent. Several methods of categorizing student intent have been discussed previously.

Survey of Leavers

The survey of "leavers" is another difficult problem. It is possible to set up a system for getting needed information from students

who formally withdraw from a class, a program or school. It is both difficult and costly to follow-up those individuals who fail to return to the class or the school.

Purposes and Reports

Two other related concerns are identifying the purposes for follow-up studies and using the data for decision making. Data are generally collected for compliance with state and federal regulations. When the studies are well designed and conducted, it is possible to use the data to make numerous kinds of decisions. At the same time, if there is confidence in the data, it could be shared with others in and outside the vocational education system.

Data Collection Systems

There was consensus that response rates of 60 to 80 percent were necessary for information from follow-up studies to be valuable. Processes which contribute to success in achieving high percentage of returns include:

1. Decentralization of the process so personnel at the local level were actively involved.

2. Provision of some "payoff" for those at the local level, such as fairly immediate return of the results and provision for those at the local level to obtain specific information of interest to them.

3. Orientation to the follow-up process for students while still in vocational education to enlist their participation and to improve the quality of responses to the items on the questionnaires.

4. Means for enlisting students in keeping addresses current.

5. Development of formats for reports for different audiences so that information can be "plugged in" and reports released without delay.

Placement

Placement of students following graduation or completion of a program was of concern to vocational educators. A definition of "acceptable" placement needed to be developed, in order to clarify reporting.

It appeared that, in order to maximize the investment in students' education, placement services would be valuable. It seemed, however, there was some reluctance on the part of vocational instructors, because of the time needed for such activities or fear their programs would be evaluated in terms of successful placement rates, to invest much effort in placement. The placement efforts in the Jobs for Arizona Graduates seemed to be appreciated. Placement efforts in this program were reported to cost about $700 per student.

Chapter 5

RECOMMENDATIONS

The Arizona Department of Education should arrange for the development and testing of a system for student follow-up. The pilot study should be conducted initially at the secondary level as program completers can be readily identified. Prior to conducting a post-secondary pilot test, categories of student intent for enrolling in vocational courses must be determined.

The major purpose of the pilot-test would be to demonstrate that a response rate greater than 60 percent is possible. A secondary purpose of the pilot-test would be to document the procedures and obtain cost estimates of a decentralized follow-up system.

The procedures for the pilot study should include: (1) securing the cooperation of schools; (2) developing the questionnaires; (3) developing the data collection plan; (4) developing formats for reports; (5) developing a plan for trend analysis of the data over time; and (6) developing a monitoring system. Steps in the system follow.

1. Secure the Cooperation of the Schools

   a. Determine the size of the sample and the types of schools to be represented.

   b. Contact school administrators to secure participation in the study.

2. Develop the Questionnaire

   a. Revise the format of the present questionnaire (Appendix D) to place items in boxes so it is easier for respondents to use. (See example in Appendix C.)

   b. Determine color of paper and ink.

   c. Include personal use or personal interest in reasons for attending school (Item D in Appendix D).

   d. Modify current employment status by including "self-employed" as a response, and full-time homemaking as part of the "Not in the labor force" as definitions (Item H in Appendix D).

   e. Add a section to the questionnaire so local school districts may add items to collect information of interest to them.

3. Plan the Data Collection

   a. Conduct orientation meetings for teachers/ administrators to plan the follow-up study.

   b. Meet with students to familiarize them with the follow-up study and motivate them to respond. At this time each student will fill in name, address, a parent/guardian who might be contacted if address changes, and vocational course(s) taken. (These will later be assigned to program codes by the project staff.) Provide students with billfold-size change-of-address cards to mail to the school if their address changes.

   c. Make a back-up copy of the questionnaire.

   d. Mail the questionnaires to students in the fall.

   e. Mail a second questionnaire two weeks following the first, to those students who have not responded.

   f. Telephone a sample of nonrespondents two weeks following the second mailing.

   g. Analyze responses of telephone survey respondents to determine if telephone responses are different from respondents on selected variables.

   h. Remove the tear-off portion containing local school requested information and forward the questionnaire to the Arizona Department of Education.

   i. Process the data at the state level and return the results to each school within two weeks.

4. Develop Report Formats

   a. Develop report formats for various users such as schools, VEDS, state staff, advisory councils, and county planning groups.

   b. Write programs to produce formatted reports.

5. Develop a Plan for Trend Analysis

6. Develop a Monitoring System

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Appendix A

TASK FORCE 1995 MEMBERS

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Mr. George Evans

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Appendix B

VEDS AND ARIZONA FOLLOW-UP REGULATIONS

Follow-Up Requirements

Federal - VEDS	Arizona - SB1106
1. Yearly report due.	1. Yearly statewide (715-203, subsection A, paragraph 35).
2. By instructional program, completers employment or educational status, within 18 months after graduation.	2. By instructional program in cooperation with school and community college districts, completers and leavers, number employed within six month time period after graduation for at least equivalent of two months full-time (715-203, subsection A, paragraph 35).
3. Report to be submitted in December 18 months after graduation.	3. No definite date for submission of report.
4. Report form: Part A - Vocation Specific; Part B - No follow-up required (prevocational - Consumer and Homemaking, Industrial Arts, Secondary below 11th grade - Introductory courses to program); Part C - Equity in Education	4. No definite guidelines or forms.
5. Data to be provided to state advisory council.	5. Provide data to public agencies responsible for economic planning and development (1-15-2024-32) and public agencies and organizations with a need for information.
6. No requirement for giving or getting data from local districts.	6. Results to be given to districts for their use for program evaluation, revision, improvement, and deletion of programs (1-15-2024-23). Districts to provide data to state for follow-up (15-2053-C).

Federal - VEDS	Arizona - SB1106
7. No requirements about providing services to students.	7. Local placement and follow-up services to be made available to students completing programs (15-2053-B-8).
8. No provision for uses of data.	8. School districts and community colleges shall use results of program evaluation follow-up survey and the district needs survey or manpower data for revision, improvement, or deletion of program by district (15-2053-D).
9. Employer follow-up required to measure satisfaction and quality of training of students (suspended in 1983).	9. Yearly follow-up survey of employers regarding all vocational and technical programs which school districts or community colleges offer.

Appendix C

INTERVIEWS

Baird, Joe. Data System and Evaluation, Vocation Education Planning and Evaluation, Arizona Department of Education.

Bartz, Tom. Vocational Director, Job Placement Coordinator, Scottsdale School District (945-9600).

Border, Barbara. Deputy Associate Superintendent, Vocational Education Instructional and Program Improvement, Arizona Department of Education.

Brown, Toni Hall. Director, Center for Information Services, 126 Mall Drive, Corsicana, Texas, 75110.

Collmer, Russell C. Director, Institutional Research Office, Pima Community College, Tucson, Arizona.

Crawford, Glenda. Department of Home Economics and Nutrition, University of North Dakota, Grand Forks, North Dakota 53202.

Erickson, Carole. Vocational Placement Coordinator, Scottsdale School District, Arizona.

Gose, Frank. Institutional Researcher, Yavapai Community College, Prescott, Arizona.

Henrix, Bill. Retired. Advisor to the Superintendent, Amphitheater School District, Tucson, Arizona.

Hall, Gordon. Acting Assistant State Director, Vocational Education, Arizona Department of Education.

Hall, William. Industrial Arts Department Chairman, Sahuaro High School, Tucson, Arizona.

LeBlanc, Carol. Statewide Occupational Planning Coordinator, Phoenix, Arizona.

Lundager, Dolly. Coordinator, Career and Placement, Pima Community College, Tucson, Arizona.

Mannion, Shirley. Deputy Associate Superintendent, Vocational Education Planning and Evaluation, Arizona Department of Education.

McCaslin, Norval. The National Center for Research in Vocational Education, The Ohio State University, Columbus, Ohio.

Marchessault, George. Manager of Cluster, Manufacturing, Transportation, Construction, Service Trades, Phoenix Union School District.

Miller, Stewart. Acting Deputy Associate Superintendent, Vocational Education Research and Project Management, Arizona Department of Education.

Munn, Charles. Retired. Former Director of Placement Program, Phoenix Union School District, member of State Vocational Advisory Council, 3711 W. Encanto Blvd., Phoenix, Arizona 85009.

Neel, Tom. Superintendent, Show Low School District #10, Show Low, Arizona.

Owen, Janet. HERO Teacher, Wilcox Junior and Senior High School, Wilcox, Arizona.

Schade, Jane K. Executive Director, Jobs for America's Graduates, Inc., Phoenix, Arizona.

Spirling, Patricia W. Assistant Executive Director, Advisory Council on Vocational/Technical Education, Phoenix, Arizona.

Thomas, Harold. Coordinator for Vocational Education, Cochise County, Bisbee, Arizona.

Welo, Timothy. Assistant Project Director, Minnesota Research and Development Center, Department of Vocational and Technical Education, St. Paul, Minnesota.

Appendix D

VOCATIONAL EDUCATION STUDENT FOLLOW-UP SURVEY

Whenever school/college or occupational program title is mentioned, they refer to the institution and the program title printed in the area immediately below.

SCHOOL/ COLLEGE	PROGRAM TITLE

NCS Trans Optic MB1S 18101 321

A. HOW MANY OCCUPATIONAL/VOCATIONAL COURSES HAVE YOU TAKEN AT THE INSTITUTION LISTED ABOVE, WHICH WERE ALSO RELATED TO THE PROGRAM TITLE ALSO LISTED? ① COURSE ② COURSES ③ COURSES ④ COURSES ⑤ COURSES ⑥ COURSES ⑦ OR MORE

B. WHAT IS YOUR CURRENT EDUCATIONAL STATUS? ○ ATTENDING SCHOOL/COLLEGE FULL TIME ○ ATTENDING SCHOOL/COLLEGE PART TIME ○ NOT ATTENDING SCHOOL/COLLEGE

C. WERE YOU IN A COOPERATIVE EDUCATION PROGRAM? ○ YES ○ NO IF YES, PLEASE INDICATE LEVEL AND WHICH PROGRAM (SEE REVERSE FOR DEFINITIONS)

LEVEL
- ○ HIGH SCHOOL
- ○ COLLEGE

- ○ AGRICULTURE
- ○ BUSINESS AND OFFICE
- ○ DISTRIBUTIVE EDUCATION
- ○ DIVERSIFIED OCCUPATIONS
- ○ HEALTH OCCUPATIONS
- ○ HOME ECONOMICS RELATED OCCUPATIONS
- ○ TRADES AND INDUSTRIAL (TECHNICAL)

RIGHT ○ ● WRONG ⊗ ✓ ⓪

HOW WELL DID THE COOPERATIVE EDUCATION PROGRAM MEET YOUR NEEDS? (ON A SCALE OF 1 TO 5) NOT AT ALL ① ② ③ ④ ⑤ VERY WELL

DIRECTIONS FOR MARKING THIS SHEET FOLD
- Use a black lead pencil (2 or softer)
- Do not use ink or ball point pens
- Make heavy marks that fill the circle
- If you wish to change any response, be sure to erase completely

D. DID YOU ATTEND SCHOOL/COLLEGE TO: (MARK ALL APPLICABLE)
- ○ GET A JOB ENTRY SKILL (PREPARE FOR A JOB)
- ○ RETRAIN FOR ANOTHER JOB
- ○ UPDATE YOUR OCCUPATIONAL SKILLS
- ○ EARN A CERTIFICATE
- ○ EARN A POST SECONDARY DEGREE
- ○ CONTINUE YOUR EDUCATION WITHOUT SEEKING A DEGREE
- ○ OTHER REASON

E. OVERALL, HOW WOULD YOU RATE THE OCCUPATIONAL/VOCATIONAL EDUCATION THAT YOU RECEIVED? (ON A SCALE OF 1 TO 5) POOR ① ② ③ ④ ⑤ VERY GOOD

F. HOW WELL HAS SCHOOL/ COLLEGE MET YOUR NEEDS? (ON A SCALE OF 1 TO 5) NOT AT ALL ① ② ③ ④ ⑤ VERY WELL

G. WERE YOU EMPLOYED FOR AT LEAST THE EQUIVALENT OF TWO MONTHS FULL TIME EMPLOYMENT WITHIN THE SIX MONTH PERIOD AFTER GRADUATING OR LEAVING SCHOOL? ○ YES ○ NO

H. WHAT IS YOUR CURRENT EMPLOYMENT STATUS?
- ○ EMPLOYED
- ○ MILITARY SERVICE
- ○ UNEMPLOYED (NOT EMPLOYED BUT ACTIVELY SEEKING EMPLOYMENT)
- ○ NOT IN THE LABOR FORCE (NOT EMPLOYED AND NOT SEEKING EMPLOYMENT DUE TO CHOICE, ILLNESS, FULL TIME STUDENT STATUS, RETIREMENT, PREGNANCY, OR OTHER REASON)

I. IF NOW EMPLOYED, PLEASE COMPLETE THE FOLLOWING:

IS THIS JOB RELATED TO YOUR FIELD OF OCCUPATIONAL/VOCATIONAL TRAINING? (ON A SCALE OF 1 TO 5) NO NOT RELATED ① ② ③ ④ ⑤ YES DIRECTLY RELATED

WHAT IS YOUR CURRENT SALARY? ____.__

PER ○ HOUR ○ WEEK ○ MONTH

HOW MANY HOURS PER WEEK DO YOU WORK? ____

FOLD

THIS EXAMPLE IS FOR A PERSON WHO EARNS $112.50 PER WEEK, AND WORKS 25 HOURS PER WEEK.

0	1	1	2	.	5	0
●	0	0	0		0	●
0	●	0	●		0	0
0	0	0	0		0	0
0	0	0	0		0	0
0	0	0	0		●	0
0	0	0	0		0	0
0	0	0	0		0	0
0	0	0	0		0	0
0	0	0	0		0	0
0	0	0	0		0	0

PER ○ HOUR ● WEEK ○ MONTH

2	5
0	0
0	0
●	0
0	0
0	0
0	●
0	0
0	0
0	0
0	0

Name of Company, Firm, or Armed Services Branch (If self-employed, please write self)

Mailing Address City State Zip Code

Your Immediate Supervisor: Last Name First Name MI

FOLD

Your Job Title _____ Please Print

Your Job Duties _____ Please Explain

J. COMMENTS _____